

## WHAT IS CLAIMED IS:

- 1           1.     A method for building a product data tracking history of the  
2     manufacture of a product of the type which has a processing means, said  
3     method utilizing a central computer device operably connected to a  
4     communications network, comprising the steps of:  
5                 installing a diagnostic tool on the product, said tool being of the  
6     type which is capable of providing specification data about the product;  
7                 assigning a unique product identity code to the product;  
8                 connecting the product to the communications network;  
9                 remotely operating said diagnostic tool over the communications  
10    network from the central computer device to provide said product specification  
11    data to the central computer device, said product specification data comprising  
12    at least said unique product identity code; and,  
13                 building the product tracking data history using said product  
14    specification data with the central computer device.
- 1           2.     A method as defined in claim 1 wherein said diagnostic tool  
2     comprises at least computer executable instructions recorded on a computer  
3     accessible medium.
- 1           3.     A method for building a product tracking data history as defined  
2     in claim 2 wherein said computer executable instructions comprise at least  
3     instructions for determining an inventory of installed components on the  
4     product, for storing and reporting said unique product identity code, and  
5     wherein said product specification data further comprises an inventory of  
6     components installed on the product.
- 1           4.     A method for building a product tracking data history as defined  
2     in claim 1 wherein said step of building the product tracking data history using  
3     said product specification data further comprises assigning said unique product  
4     identity code to the product tracking data history.

1           5.     A method for building a product tracking data history as defined  
2     in claim 1 wherein an operator computer device that at least partially controls  
3     the manufacture of the product is connected to the communications network,  
4     the method further comprising the steps of:  
5                 placing at least one set of product assembly specifications in a  
6     central data repository connected to the central computer device;  
7                 assigning a unique identity code to each of said set of product  
8     assembly specifications;  
9                 transmitting said product assembly specifications to the operator  
10    computer device for use in assembling the product; and,  
11                 wherein said product specification data further comprises said  
12    unique identity code corresponding to said product assembly specifications  
13    being transmitted to the operator computer device.

1           6.     A method for building a product tracking data history as defined  
2     in claim 1 wherein the method further comprises the steps of:  
3                 providing at least one product performance test protocol;  
4                 placing said at least one product performance test protocol in a  
5     central data repository connected to said central computer device;  
6                 wherein said step of remotely operating said diagnostic tool over  
7     the communications network further comprises causing said diagnostic tool to  
8     execute said at least one product performance test protocol, and wherein said  
9     product specification data reported by said diagnostic tool further comprises  
10    product performance test results.

1           7.     A method for building a product tracking data history as defined  
2     in claim 6 wherein said method further comprises the step of:  
3                 assigning a unique test identity code to each of said at least a  
4     product performance test protocol; and,

5                wherein said product specification data reported by said  
6       diagnostic tool further comprises said unique test identity code corresponding  
7       to said performance test protocol.

1                8.        A method for building a product tracking data history as defined  
2       in claim 7 wherein each of said at least a product performance test protocol has  
3       a pass or fail outcome, and wherein the method further comprises the step of:  
4                creating a product defect file in said central data repository when  
5       a fail result occurs upon execution of said at least a product performance test  
6       protocol.

1                9.        A method for building a product data tracking history as defined  
2       in claim 8 wherein said product defect file comprises at least said test identity  
3       code for said product performance test protocol resulting in said fail result.

1                10.       A method for building a product tracking data history as defined  
2       in claim 1 wherein the method is for manufacturing a product for a product  
3       owner by at least an external contractor, the at least an external contractor  
4       connected to the communications network, and wherein the central computer  
5       device connected to said network is under control of the product owner,  
6       wherein the method further comprises the step of:  
7                connecting the product to the communications network while the  
8       product is at the external contractor; and,  
9                wherein said step of remotely operating said diagnostic tool over  
10       the communications network comprises remotely operating said diagnostic tool  
11       while the product is at the at least an external contractor.

1                11.       A method for building a product tracking data history as defined  
2       in claim 10 wherein the method further comprises the step of:

3 assigning each of the at least an external contractor a unique  
4 contractor code, and wherein said product specification data further comprises  
5 said unique contractor code.

1 12. A method for building a product tracking history as defined in  
2 claim 11 wherein the at least an external contractor comprises a plurality of  
3 external contractors.

1 13. A method for building a product tracking data history for a  
2 product manufactured for a product owner by at least an external contractor, a  
3 communications network connecting the product owner with each of the at  
4 least an external contractors, a central computer device controlled by the  
5 product owner connected to the communications network, the method  
6 comprising the steps of:

7 installing a diagnostic tool on the product, said diagnostic tool  
8 being of the type which is capable of reporting specification data about the  
9 product;

10 assigning a unique product identity code to the product;

11 connecting the product to the communications network when the  
12 product is at the at least an external contractor;

13 remotely operating said diagnostic tool over the communications  
14 network with the central computer device to report product specification data  
15 to a central data repository connected to the central computer device, said  
16 product specification data comprising at least said unique product identity  
17 code; and,

18 building the product tracking data history from said central data  
19 depository using said product specification data.

1 14. A method as defined in claim 13 wherein said diagnostic tool  
2 comprises at least computer executable instructions recorded on a computer  
3 accessible medium.

1           15. A method for building a product tracking data history as defined  
2 in claim 14 wherein said diagnostic tool recorded computer executable  
3 instructions comprise at least instructions for determining an inventory of  
4 installed components on the product, means for storing said unique product  
5 identity code, and wherein said product specification data further comprises an  
6 inventory of components installed on the product.

1           16. A method for building a product tracking data history as defined  
2 in claim 13 wherein said step of building the product tracking data history from  
3 said central data depository using said product specification data further  
4 comprises assigning said unique product identity code to the product tracking  
5 data history.

1           17. A method for building a product tracking data history as defined  
2 in claim 13, wherein the method further comprises the step of:  
3           placing at least a set of product assembly specifications in said  
4 central data repository whereby the at least an external contractor may access  
5 said at least a set of product assembly specifications remotely over the  
6 communications network to build the product.

1           18. A method for building a product tracking data history as defined  
2 in claim 17 wherein the at least an external contractor has an operator computer  
3 device connected to the communications network, and wherein the method  
4 further comprises the steps of:  
5           assigning a unique product assembly specification code to each of  
6 said at least a set of product assembly specifications;  
7           transmitting said at least a set of product assembly specifications  
8 over the communications network to the operator computer device; and  
9           wherein said product specification data remotely reported over  
10 the communications network from said diagnostic tool further comprises said

11 unique product assembly specification code corresponding to said at least a set  
12 of product assembly specifications transmitted to the operator computer device.

1 19. A method for building a product tracking data history as defined  
2 in claim 13 wherein the method further comprises the steps of:  
3 providing at least a product performance test protocol for testing  
4 the performance of the product; and,  
5 placing said at least a product performance test protocol in said  
6 central data repository whereby said at least a product performance test  
7 protocol may be transmitted over the communications network to the at least an  
8 external contractor.

1 20. A method for building a product tracking data history as defined  
2 in claim 19 wherein said step of remotely operating said diagnostic tool over  
3 the communications network further comprises causing said diagnostic tool to  
4 execute said product performance test protocol, and wherein said product  
5 specification data reported by said diagnostic tool further comprises results  
6 from execution of said product performance test protocol.

1 21. A method for building a product tracking data history as defined  
2 in claim 20 wherein the method further comprises the step of assigning a  
3 unique test identity code to each of said at least a product performance  
4 protocol, and wherein said product specification data reported by said  
5 diagnostic tool further comprises said unique test identity code corresponding  
6 to said performance test protocol.

1 22. A method for building a product tracking data history as defined  
2 in claim 21 wherein each of said at least a product performance test protocol  
3 has a pass or fail outcome, and wherein the method further comprises the step  
4 of creating a product defect history file in said central data repository upon  
5 occurrence of said fail result.

1           23. A method for building a product tracking history as defined in  
2 claim 22 wherein said product defect history comprises at least said product  
3 performance test identity code corresponding to said product performance test  
4 resulting in said fail outcome.

1           24. A method for building a product tracking history as defined in  
2 claim 13 wherein the at least a contractor comprises a plurality of contractors;  
3 each of the plurality of contractors connected to the communications network  
4 whereby each of the external contractors may interface with said central data  
5 repository, and wherein the method further comprises the step of:

6                 assigning each of the plurality of external contractors a unique  
7 contractor code;

8                 wherein said step of remotely operating said diagnostic tool over  
9 the communications network further comprises connecting the product to the  
10 communications network when the product is at each of the plurality of  
11 contractors;

12                prompting said diagnostic tool to provide said unique contractor  
13 code corresponding to the contractor where the product is; and,

14                wherein said product specification data reported over the  
15 communications network to said central data repository further said unique  
16 contractor code.

1           25. A method for building a product tracking data history for a  
2 product being manufactured for a product owner by at least an external  
3 contractor, the product owner and at least an external contractor connected to a  
4 communications network, the product owner controlling a central computer  
5 device connected to the communications network, each of the at least an  
6 external contractors having an operator computer device connected to the  
7 communications network for use in at least a portion of the product  
8 manufacture, the method comprising the steps of:

9 installing a diagnostic tool on the product; said diagnostic tool  
10 being of the type which is capable of providing specification data about the  
11 product; said diagnostic tool comprising at least computer executable  
12 instructions;  
13 assigning a unique product identity code to the product, said  
14 unique product identity code accessible by said diagnostic tool;  
15 assigning a unique contractor code to each of the at least an  
16 external contractor;  
17 providing at least a set of product assembly specifications;  
18 assigning each of said at least a set of product assembly  
19 specifications a unique identity code;  
20 placing said at least a set of product assembly specifications on  
21 the central computer device;  
22 providing at least a product performance test protocol; assigning  
23 each of said at least a product performance test protocol a unique test identity  
24 code, each of said at least a product performance test protocol having a pass or  
25 fail outcome;  
26 placing said at least a product performance test protocol on the  
27 central computer device;  
28 connecting the product to the communications network when the  
29 product is at the at least an external contractor;  
30 transmitting said at least a set of product assembly specifications  
31 over the communications network to the operator computer device at the  
32 external contractor when the product is connected to said communications  
33 device;  
34 remotely operating said diagnostic tool over the communications  
35 network to report product specification data to the central computer device,  
36 said product specification data comprising at least said unique product identity  
37 code, an inventory of components installed on the product, said unique product  
38 assembly code corresponding to said at least a set of product assembly  
39 specifications transmitted over the communications network, said unique



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40 contractor identity code corresponding to the external contractor said set of  
41 product assembly specifications are transmitted;  
42 remotely operating said diagnostic tool to execute said at least a  
43 performance test protocol to produce performance test results, remotely  
44 prompting said diagnostic tool to report said performance test results over the  
45 communications network to the central computer device;  
46 building the product data history with the central computer  
47 device;  
48 assigning said unique product identity code to the product data  
49 history, the product data history comprising at least, said inventory of  
50 components installed on the product, said unique contractor code  
51 corresponding to the contractor the product is, said product assembly  
52 specifications identity code corresponding to said at least a set of product  
53 assembly specifications being transmitted over the communications network to  
54 the operator computer device, said performance test identity code for each of  
55 said at least a performance test protocol executed by said diagnostic tool with  
56 corresponding of said performance test results; and,  
57 creating a product defect tracking history with the central  
58 computer device upon a fail result after execution of any of said at least a  
59 product performance test protocols, said product defect history comprising at  
60 least said test identity code for said at least a product performance test protocol  
61 resulting in said fail result.

1 26. A method for creating a product tracking data history file as  
2 defined in claim 25 wherein the at least an external contractor comprises a  
3 plurality of external contractors.

1 27. A computer program product for causing a computer to create a  
2 product tracking data history file for a product, the product comprising  
3 processor means and having a unique product identity code, the product having  
4 a diagnostic tool installed therein, the diagnostic tool of the type capable of

reporting product specification data, the computer program product comprising a computer usable medium having computer readable program code embodied in the medium, the computer usable medium on a central computer that is connected to a communications network, the computer program product when executed causing the central computer to:

remotely operate said diagnostic tool over the communications network when the product is connected to the communications network to report product specification data to a central data repository connected to the central computer device, said product specification data comprising at least said unique product identity code; and,

build the product tracking data history from said central data depository using said product specification data.

28. A computer program product as defined in claim 27, wherein at least one set of product assembly specifications are stored in said central data depository connected to the central computer device, the product assembly specifications having a unique identity code, and wherein the computer program product when executed causes the central computer to:

transmit said set of product assembly specifications to an operator computer device connected to the communications network, the operator computer device for use in at least a portion of the manufacture of the product; and,

wherein said product specification data reported by said diagnostic tool further comprises said unique identity code corresponding to said product assembly specifications being transmitted to the operator computer device.

29. A computer program product as defined in claim 27, wherein at least one product performance test protocol is stored in said central data depository connected to the central computer device, each of said at least a

performance test protocols having a unique test identity code, and wherein the computer program product when executed causes the central computer to:

remotely operate said diagnostic tool over the communications network to execute said at least a product performance test protocol; and ,

wherein said product specification data reported by said diagnostic tool further comprises product performance test results and said unique test identity code corresponding to said at least a product performance test protocol being executed.

30. A computer program product for causing a computer to create a product tracking data history file for a product, the product comprising processor means and having a unique product identity code, the product having a diagnostic tool installed thereon, the diagnostic tool of the type capable of reporting product specification data, the product being manufactured for a product owner by an external contractor, a unique contractor code assigned to the external contractor, the computer program product comprising a computer usable medium having computer readable program code embodied in the medium, the computer usable medium on a central computer that is connected to a communications network, the product connected to the communications network at the external manufacturer, the computer program product when executed causing the central computer to:

transmit a set of product assembly specifications stored on the central computer over the communications network to an operator computer device at the external contractor, the operator computer device for use in at least a portion of the product manufacture, the set of product assembly specifications having a specification identity code;

remotely operate the diagnostic tool over the communications network to execute a product performance test protocol stored on the central computer, said product performance test protocol having a test identity code;

remotely operate the diagnostic tool over the communications network to report product specification data to the central computer device;

23 said product specification data comprising at least the unique product identity  
24 code, the unique contractor code, an inventory of components installed on the  
25 product, said unique product specification code corresponding to said set of  
26 product assembly specifications transmitted over the communications network,  
27 performance test results resulting from executing said product performance test  
28 protocol, said test identity code corresponding to said product performance test  
29 protocol executed;

30 build the product data history;

31 assign the unique product identity code to the product data  
32 history, the product data history comprising said inventory of components  
33 installed on the product, the unique contractor code corresponding to the  
34 external contractor the product, said product assembly specifications identity  
35 code corresponding to said set of product assembly specifications being  
36 transmitted over the communications network to said operator computer  
37 device, said test identity code for said performance test protocol executed by  
38 said diagnostic tool with corresponding of said performance test results; and,

39 create a product defect tracking history with the central computer  
40 device upon a fail result for any of said at least a product performance test  
41 protocols, said product defect history comprising at least the unique product  
42 identity code and said test identity code for said at least a product performance  
43 test protocol resulting in said fail result.